

**Addendum #**  
**Infrastructure Services**  
**Mainframe Processing Services**  
**Effective (date)**

**Purpose**

The Iowa Department of Administrative Services (DAS) will provide Mainframe Processing Services to [Agency] ("Agency") for support of agency automated business processes. This Service Level Agreement will document the service components, service level objectives, and responsibilities of DAS and Agency.

**Service**

<p><b>Mainframe Processing</b></p> <p><b>Comprised of:</b></p> <p>Batch processing</p> <p>On-line transaction processing</p> <p>IDMS data base services</p>	<p>The DAS Mainframe Processing service provides Agency with the following functions:</p> <ul style="list-style-type: none"> <li>• Mainframe computational services for tasks submitted by customers (batch processing) either interactively from terminals or through automated scheduled processes.</li> <li>• Security based on IBM RACF Security Server software</li> <li>• Mainframe user credentials for agency's users of mainframe service</li> <li>• On-line transaction processing accessible from terminals and workstations using the CICS(IBM's Customer Information Control System)</li> <li>• Data Base processing using Computer Associates IDMS (Integrated Data Management System) data base</li> <li>• Direct access to agency files located on the ITE mainframe attached storage</li> <li>• FTP services to designated servers</li> <li>• File storage and retrieval</li> <li>• Firewall security protection and monitoring for network connections to ITE computational resources</li> <li>• Back-up and restore services.</li> <li>• ITE Service Desk support services</li> <li>• Historical file storage and retrieval</li> <li>• Selected inventory of software tools to support development and applications.</li> <li>• 24x7 operations support</li> <li>• Software support to install and manage operating system software inventory.</li> </ul> <p>Mainframe attached disk, virtual and physical tape storage, and hard copy reporting printing are available for usage based charges.</p>
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**Agency Organization & Scale**

<b>User Count</b>	[number of mainframe credentials assigned to agency]		
<b>Agency Network Connectivity</b>	Agency WAN Link availability as guaranteed by Network Service Provider (if no guarantee provided, list N/A)		
	[Site Location 1]	[Link Speed] [Provider]	0.00%
<b>Agency Regular Hours</b>	[State Agency Regular Business Hours]		
<b>Agency Scheduled Maintenance</b>	[Describe standard maintenance windows observed by Agency]		

## Service Level Objectives

DAS Regular Business Hours	Monday through Friday 7:00 AM to 5:00 PM daily, excluding recognized state holidays.														
Scheduled Maintenance	<p>Every Sunday from 4:00 AM until Noon is reserved for DAS mainframe maintenance, with additional maintenance time scheduled as needed on Sundays from 12:00 AM (midnight) to 4:00 AM. Maintenance that does not affect end user's utilization of the mainframe system may be completed at other times of the day/week.</p> <p>DAS will provide notice 60 calendar days prior to scheduled major system maintenance or hardware or software upgrades.</p> <p>Outages that exceed the scheduled and overflow windows may occasionally be required. Such maintenance is not routine and all reasonable efforts will be made to schedule a date and time for the outage that limits interruption to Agency business.</p> <p>All maintenance activity will be scheduled and approved by the DAS Change Advisory Board.</p>														
Notifications	<p>Notifications regarding scheduled maintenance and approved changes that impact the availability of mainframe services for Agency will be issued via e-mail list server to subscribed Agency contacts. The Agency Service Contacts given in this document will be auto-subscribed to the notification list.</p> <p>Agency Service Contacts are responsible for reviewing DAS notifications and relaying notification information to users in compliance with Agency processes and policy unless otherwise noted here.</p> <p>In the event of a service failure that precludes the use of e-mail communications, DAS will contact Agency Service Contacts via phone numbers provided.</p> <p>[Indicate if Agency wishes DAS to send all change and maintenance notifications to all Agency end users]</p> <p>Agency will receive a minimum of two days advanced notice regarding all routine changes and regularly scheduled maintenance.</p>														
Availability Objectives	<p>During prime shift (defined as 7:00 am until 5:00 pm, Monday through Friday (excluding holidays):</p> <p>As measured by DAS and monitored from DAS networks</p> <table><tr><td>Component availability and operability status</td><td>Objective</td></tr><tr><td>DAS Mainframe processing (operator master console is accepting and processing commands)</td><td>99.5%</td></tr><tr><td>DAS CICS (terminal owning region)</td><td>99.5%</td></tr><tr><td>DAS IDMS database</td><td>99.5%</td></tr><tr><td>DAS mainframe disk infrastructure</td><td>99.5%</td></tr><tr><td>DAS mainframe tape infrastructure</td><td>99.5%</td></tr></table> <p>Outside prime shift:</p> <p>As measured by DAS and monitored from DAS networks, excluding reserved maintenance windows</p> <table><tr><td>Component availability and operability status</td><td>Objective</td></tr></table>	Component availability and operability status	Objective	DAS Mainframe processing (operator master console is accepting and processing commands)	99.5%	DAS CICS (terminal owning region)	99.5%	DAS IDMS database	99.5%	DAS mainframe disk infrastructure	99.5%	DAS mainframe tape infrastructure	99.5%	Component availability and operability status	Objective
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	<b>Maintenance Windows:</b>  Maintenance windows with scheduling and customer notification following DAS documented procedures to not count against the availability objectives noted above.																													
<b>Measurement</b>	The availability of the mainframe services will be measured by DAS, from monitors on the mainframe and DAS networks. These metrics will be reviewed at least monthly by DAS. Monthly availability reports tracking the objectives described here will be provided to the Agency for review and analysis. Incidents that impacted availability of mainframe services will be documented and distributed to affected customers in incident reports per event, if known by DAS.																													
<b>Addressing Availability Problems</b>	Agencies that experience availability at lower levels than reported monthly by DAS may conduct a Detailed Availability Assessment in cooperation with DAS. The Detailed Availability Assessment may include the installation of temporary or permanent monitors at Agency locations at Agency expense. Agency and DAS will jointly assess the results of additional monitoring to produce a report on the sources of availability problems reported by Agency and remediation strategies.  Service availability problems resulting from Agency WAN Link providers, Agency-operated Desktop or Laptop PC's, Agency-operated LAN's, and other non-DAS-operated components are not the responsibility of DAS,																													
<b>Recovery Time Objectives</b>	<table><tr><th><u>Action from related support team / component</u></th><th><u>Objective</u></th></tr><tr><td colspan="2"><b>Mainframe Operating System Software</b></td></tr><tr><td>Time to Accept Service Request (DAS business hours)</td><td>1 hour</td></tr><tr><td>Problem Recovery Time (DAS business hours)</td><td>8 hours</td></tr><tr><td>Problem Recovery Time (outside DAS business hours)</td><td>Best effort</td></tr><tr><td colspan="2"><b>Mainframe hardware components</b></td></tr><tr><td>Time to Accept Service Request</td><td>1 hour</td></tr><tr><td>Vendor to be on site</td><td>4 hours</td></tr><tr><td>Problem Recovery Time</td><td>8 hours</td></tr><tr><td colspan="2"><b>DAS Campus/JFHQ Network Infrastructure</b></td></tr><tr><td>Time to Accept Service Request</td><td>1 hour</td></tr><tr><td>Problem Recovery Time</td><td>8 hours</td></tr><tr><td colspan="2"><b>DAS ICN-Provided WAN Link</b></td></tr><tr><td>Established Time to Register Incident with ICN</td><td>1 hour</td></tr></table>		<u>Action from related support team / component</u>	<u>Objective</u>	<b>Mainframe Operating System Software</b>		Time to Accept Service Request (DAS business hours)	1 hour	Problem Recovery Time (DAS business hours)	8 hours	Problem Recovery Time (outside DAS business hours)	Best effort	<b>Mainframe hardware components</b>		Time to Accept Service Request	1 hour	Vendor to be on site	4 hours	Problem Recovery Time	8 hours	<b>DAS Campus/JFHQ Network Infrastructure</b>		Time to Accept Service Request	1 hour	Problem Recovery Time	8 hours	<b>DAS ICN-Provided WAN Link</b>		Established Time to Register Incident with ICN	1 hour
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<b>Escalation Procedures</b>	<p>In the event of a service failure identified by DAS or Agency that impacts the majority of agency users or exceeds recovery time objectives, DAS will offer to convene an incident response team comprised of an Agency delegate, a DAS incident coordinator, and members of DAS mainframe, network, storage, and security teams. The incident response team will have ownership of the problem and will be granted the authority to coordinate and deploy resources necessary to resolve the incident. The designated incident coordinator will be responsible for documenting action steps and producing an after-action incident report that describes the incident and recommends next steps to prevent a reoccurrence.</p>								
<b>Performance</b>	<p>Performance from a client perspective will vary based on a number of factors. The DAS support team will operate with the following performance objectives for the Mainframe Processing Service, to be measured by DAS from mainframe statistics and DAS networks.</p> <table border="1"> <thead> <tr> <th></th><th>Objective</th></tr> </thead> <tbody> <tr> <td>80% of on-line (CICS) transactions (CICS system and ill behaved customer transactions will be excluded from measurement until corrected)</td><td>.5 seconds</td></tr> <tr> <td></td><td></td></tr> <tr> <td></td><td></td></tr> </tbody> </table>		Objective	80% of on-line (CICS) transactions (CICS system and ill behaved customer transactions will be excluded from measurement until corrected)	.5 seconds				
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<b>Contingency Planning</b>	<p>Agency is responsible for planning and executing business continuity functions for their mainframe applications.</p> <p>DAS maintains mainframe data centers at JFHQ (Joint Forces Headquarters) in Johnston and the Hoover building on the capital complex that are capable of taking on each others' workload in an emergency situation. Disk and tape data stored at one data center is routinely mirrored (near real time copy) to the other data center.</p> <p>DAS responsibility in support of agency contingency plans is detailed in the agency specific portion of this document.</p> <p>For Primary Disaster Recovery purposes all disk data is replicated in near real time to a disk storage in the opposite data center.</p> <p>Tape data designated for off-site vaulting is mirrored to the opposite data center in near real time. Additional tape data may be mirrored as recovery plans evolve.</p>								
<b>Recovery Point Objectives</b>	<p>In the event of a disaster, it is feasible that work in process (not mirrored to the alternate site) may be lost. Changes made to the system up to 4 hours prior to a disaster may not be recoverable from the mirrored data. Availability of data not covered by the mirroring facilities is as described below in the "Backup &amp; Recovery" section.</p>								
<b>Backup &amp; Recovery</b>	<p>All mainframe disk data is mirrored (copied) to the alternative data center on a near real time basis.</p> <p>Changed data on disk volumes is backed up daily. Full volume backups customer batch data are taken each month and maintained for 6 months.</p> <p>Backup for data base and VSAM data used in on-line applications the responsibility of the agency owning the application using this data.</p>								

	<p>Tape data marked for off-site vaulting is copied to the alternative data center on a near real time basis. Planning is underway to consider expanding this service to cover additional tape data.</p> <p>Customers can initiate recovery of lost files using an on-line application.</p>
<b>Support Prerequisites</b>	<p>In order for Agency to use the mainframe service, the following requirements must be met.</p> <ul style="list-style-type: none"> <li>• Designated agency security personnel must authorize issuance of access credentials to users.</li> <li>• Agency must obtain valid eDAS account codes and associate them with work submitted for mainframe processing.</li> <li>• Agency must arrange for appropriate terminal emulation and networking support to access mainframe services.</li> <li>• Agency retains responsibility for the development, ownership, and management of agency applications and code.</li> <li>• Agency will meet DAS operational standards for infrastructure. This includes, but is not limited to network and processor security procedures, data set allocation and space planning.</li> </ul>

## Limitations

<b>Capacity</b>	DAS intention is to maintain adequate mainframe capacity to meet the aggregate requirements of agencies sharing the mainframe systems. Agencies are requested to share long term plans to grow or shrink mainframe utilization to allow adequate time to adjust mainframe capacity to meet their requirements.
<b>Functionality</b>	Mainframe processing is provided using Z/OS operating system. Major subsystems include CICS for on-line transaction processing and IDMS for data base. An inventory of IBM and 3 <sup>rd</sup> party software products provides additional capability for software development, data analysis and manipulation, and system management.
<b>Hardware</b>	Mainframes: IBM Z10 (Hoover), IBM Z890 (JFHQ). Disk Storage: IBM DS8700 (JFHQ and Hoover). Tape Storage: IBM 3957 (virtual tape) (JFHQ and Hoover), IBM TS3584 (robotic tape library) (Hoover and JFHQ) IBM 3592 tape cartridges. IBM 3490 tape processing is currently available, but is no longer supported by vendors.

## Agency Specific Configurations

<b>IWD</b>	Hours of operation. Maintenance windows
<b>IME</b>	DR language
<b>SAE</b>	DR language for warrants
<b>IDR</b>	DB2 support
<b>DHS</b>	IRS and/or SSA specific requirements
<b>IDR</b>	IRS specific requirements

## Supported Tasks

<b>Task Details</b>	DAS will provide routine support for problems and incidents related to mainframe services at no additional costs to the Agency. The following tasks will also be completed upon customer request. Some are included at no cost and other are billable as described below:	
	<b>Task</b> <b>To Request:</b> <b>Completion Norm:</b> <b>Charge:</b>	Add/Change/Delete program definitions for on-line (CICS) applications Submit a request using the RQIS application. Requests received by noon Thursday are processed during the following Sunday maintenance window. Emergency requests are honored whenever possible. Included in service charges.
	<b>Task</b> <b>To Request:</b> <b>Completion Norm:</b> <b>Charge:</b>	Add/Change/Delete user credentials Agency security administrator completes a request using the on-line IDEA application. Agencies without a designated security administrator may submit a hard copy request to the DAS security administrator. Properly authorized requests will be completed within 3 working days. Included in service charges
	<b>Task</b> <b>To Request:</b> <b>Completion Norm:</b> <b>Charge:</b>	Change security for data stored on the system
	<b>Task:</b> <b>To Request:</b> <b>Completion Norm:</b> <b>Charge:</b>	Allocations of large storage
	<b>Task:</b> <b>To Request:</b> <b>Completion Norm:</b> <b>Charge:</b>	Install, configure, and maintain software products or applications not included in the standard inventory of products. E-mail to Data Center Manager, complete concept paper documenting requirements. To be determined by the magnitude of the effort required as defined in the concept paper. Agency may be required to pay all licensing charges associated with products only used by that agency. Consulting rates may apply for staff time. Costs determined by evaluation of the concept paper.
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## Billing

<b>Charges</b>	<p>It is mutually understood and agreed that the rates charged by DAS-ITE under this Addendum will be the published rate in effect at the time of service delivery. The rates quoted herein reflect the rates in effect at the time of document execution.</p> <p>The pricing associated with the Mainframe Processing Service is posted at <a href="http://edas.iowa.gov">http://edas.iowa.gov</a>. Based on FY11 rates, beginning [Date], Agency will be billed for the following services. Quantities are variable depending on utilization. Please check with service contacts listed above for up to date quantity estimates:</p>
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## Evaluation

<b>Frequency</b>	<p>The service level agreements based on this catalog item will be reviewed annually.</p> <p>Agency will notify DAS of any updates or changes to the documented configurations and Agency information detailed here as those changes occur.</p>
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## Service & Billing Contacts

- Service Contacts  
DAS Senior Resource Manager [Redacted]  
DAS-ITE Service Manager Russ Rozinek 515-281-4836  
Agency [Redacted]
- Billing Contacts  
Agency Billing Code: [Redacted]  
Agency Financial Contact [Redacted]

Please indicate after hours contact information:

## Customer Acceptance

Agency	Iowa Department of Administrative Services Information Technology Enterprise
By: _____	By: _____ Lorrie Tritch
Title:	Title: Chief Operating Officer
Date: _____	Date: _____